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Male Circumcision

This week's HIV/AIDS Today factsheet focuses on male circumcision, a practice that studies have shown to be effective in reducing a man's risk of contracting HIV infection by more than 50%.

AN OBSERVED LINK BETWEEN CIRCUMCISION AND REDUCED HIV RATES

Male circumcision is the surgical removal of the male foreskin. An estimated 665 million men, roughly 30% of the world's male population, are circumcised.ⁱ

Over the past decade, multiple observational studies have shown that circumcised men have a lower prevalence of HIV infection than uncircumcised men. A systematic review of eight prospective observational studies has shown that circumcised men have a lower risk of acquiring HIV infection, even after adjustment for differences in sexual behavior.ⁱⁱ

For example, a study in four urban populations in sub-Saharan Africa investigated behavioral and other factors that could account for the large disparities seen in HIV prevalence across different African regions. Low prevalence of male circumcision and high prevalence of genital ulcer disease, which are more common in uncircumcised men, emerged as two of the principal determinants for the differences in HIV rates found in sub-Saharan Africa.

RECENT DEVELOPMENTS

While the observational studies showed an association between circumcision and reduced risk for HIV infection, they could not prove a causal relationship. However, in recent years, several randomized, controlled

trials have now demonstrated that male circumcision does indeed reduce a man's risk of acquiring HIV through heterosexual intercourse.

Three trials conducted in Africa each showed more than 50% reduction in HIV infection among men randomly assigned to be circumcised compared to men who were

not circumcised.ⁱⁱⁱ The effect was so strong that the trials were stopped early because it was considered unethical to withhold the intervention from the control group.^{iv}

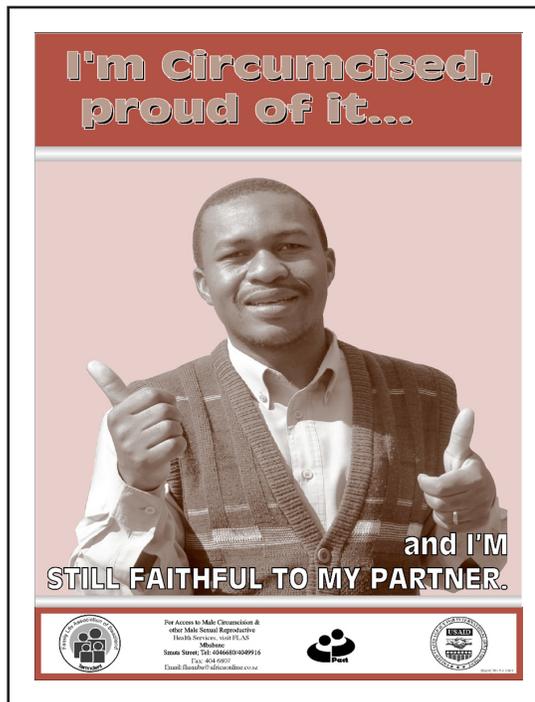
The first trial was conducted in Orange Farm, South Africa and included 3,274 men aged 18 to 24. Men assigned to the circumcision group experienced a 60% reduced risk of heterosexually acquired HIV infection compared to the control group.

The second trial took place in Rakai, Uganda. It included 4,996 men aged 15 to 49 years and showed that adult male circumcision reduced the risk of the male becoming infected with HIV by 51%.^v

The third trial was conducted in Kisumu, Kenya and included 2,784 men aged 18 to 24 years. Like the two earlier studies, the trial demonstrated a significantly reduced risk of male infection among adult circumcised men, finding a 53% reduced risk of HIV infection.^{vi}

IMPLEMENTATION CONSIDERATIONS

While there is a growing body of evidence in support of male circumcision as a tool for reducing HIV infections among men, there are a number of important issues to keep in mind regarding widespread expansion of the practice.



First, male circumcision does not completely protect the male from HIV infection. Circumcised men can still become infected with the virus, even if the possibility may be reduced compared to uncircumcised males exposed to similar risk. Male circumcision should never be used as the sole replacement for other known effective prevention methods. It should always be considered as part of a comprehensive prevention approach, which, according to UNAIDS and WHO, includes frequent HIV testing and counseling services, treatment for sexually transmitted infections (STIs), the promotion of safer sex practices, and the correct and consistent use of male and female condoms.^{vii}

Second, countries that decide to expand male circumcision services will need to ensure that it is implemented

in the safest manner possible to avoid infection and other risks. In addition, male circumcision should be promoted in a culturally appropriate way. However, it is important to note that in multiple acceptability studies in regions of Africa where male circumcision is not traditionally practiced, a majority of men were interested in the procedure.^{viii}

Finally, it has not been determined whether male circumcision reduces the direct risk of HIV transmission from male to female.^{ix} However, a reduction in HIV rates among men is expected to lead indirectly to a decrease among women, potentially preventing millions of cases among them and their children as well as directly among men.

ENDNOTES

ⁱ UNAIDS/WHO Press Release, WHO and UNAIDS Announce Recommendations from Expert Meeting on Male Circumcision for HIV Prevention (Mar. 28, 2007) (Online at http://data.unaids.org/pub/PressRelease/2007/20070328_pr_mc_recommendations_en.pdf).

ⁱⁱ UNAIDS/WHO Factsheet, Male Circumcision and HIV (Dec. 2006) (online at http://data.unaids.org/pub/FactSheet/2007/20061229_MC_FS_en.pdf).

ⁱⁱⁱ *Supra* note i.

^{iv} Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, et al. (2005) Randomized, Controlled Intervention Trial of Male Circumcision for Reduction of HIV Infection Risk: The ANRS 1265 Trial. *PLoS Med* 2(11): e298 (2005) (online at <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0020298&ct=1>).

^v Gray, R., Kigozi, D., Serwadda, F., et al. Male Circumcision for HIV Prevention in men in Rakai, Uganda: A Randomised Trial. *The Lancet*, Vol. 369, Issue 9562, Pgs. 657-666 (Feb. 24, 2007 – Mar. 2, 2007).

^{vi} Newell, Marie-Louise, Barnighausen, Till, Bailey, Robert, et al. Male Circumcision for HIV Prevention in Young Men in Kisumu, Kenya: A Randomised Controlled Trial. *The Lancet*, Vol. 369, Issue 956, Pgs. 643-656 (Feb. 24, 2007 – Mar. 2, 2007).

^{vii} *Supra* note i.

^{viii} Westercamp et al., "Acceptability of Male Circumcision for Prevention of HIV/AIDS in Sub-Saharan Africa: A Review," *AIDS and Behavior* (2007).

^{ix} Gray RH, Kiwanuka N, Quinn TC, Sewankambo NK, et al. (2000) *AIDS*, Oct 20;14(15), Pgs.2371-81.